US Army Corps
of Engineers.

SAN FRANCISCO DISTRICT

PUBLIC NOTICE

PROJECT: Wilder Creek Dam Removal
NUMBER: **23250S** DATE: April 6, 1998
RESPONSE REQUIRED BY: **May 6, 1998**

Regulatory Branch
333 Market Street
San Francisco, CA 94105-2197 PROJECT MANAGER: Mark D'Avignon TELEPHONE: (415) 977-8446 Email: MD'Avignon@smtp.spd.usace.army.mil

1. **Introduction:** The Wilder Ranch State Park, Highway 1, Santa Cruz, California (Contact: George Gray (408) 429-2867) has applied for a Department of the Army authorization to remove an earthen dam and excavate approximately 20,000 cubic yards of accumulated sediment on Wilder Creek in Wilder Ranch State Park located in the City and County of Santa Cruz, California. This application is being processed pursuant to the provisions of Section 404 of the Clean Water Act (33 U.S.C. 1344).

2. **Project Description:** As shown in the attached drawings, the applicant plans to remove an earthen dam and 20,000 cubic yards of sediments entrapped above the dam, spread the excavated material on an adjacent upland field, and revegetate the site after excavating the sediments. The purposes of the proposed project are (1) to prevent erosion of an adjacent field and the undermining of a water main resulting from the creek flowing around the dam during high flows, (2) to prevent sedimentation downstream of the dam in an area that has been restored to wetland habitat, and (3) to restore spawning areas upstream of the dam for steelhead and coho salmon.

The Wilder Creek Dam was built in 1956 to provide irrigation water, and was constructed of material excavated from the reservoir site. In 1961, the dam was enlarged and a concrete spillway was constructed. Since its construction, the dam has been a sediment trap and the 1-acre reservoir filled with sediment by 1985. Every year sediment is removed from the reservoir, but sediment continues to accumulate. During the winter of 1994-1995, the creek began to bypass the reservoir due to the perched plateau of sediment. Since that time, the creek has bypassed the dam every year and is causing severe erosion of an adjacent field. In addition to the erosion problem, a 36-inch water pipeline which supplies water to a portion of Santa Cruz is located downstream of the dam, and is being undermined by the newly formed dam bypass channel. The excavated sediments from the reservoir would be used to fill the eroded channel threatening to undermine the water pipeline.

The long-term goal of the project would be to eliminate Wilder Creek Dam and the impounded sediment in order to restore natural hydrologic processes the Creek. Anadromous fish which are occasionally observed in Wilder Creek below the dam would be able to resume spawning upstream of the dam.

3. **State Approvals:** The applicant has been informed to notify the Regional Water Quality Control Board, Central Coast Region, to determine the need for State water quality certification. If the State Water Resources Control Board determines that this project is consistent with the California Water Quality Control Plan, Requirements adopted by the Regional Board and Sections 301, 302, 303, 306 and 307 of the Clean Water Act, the State will issue a Certificate of Conformance with Water Quality Standards to the project proponent. Those parties concerned with any water quality problems that may be associated with this project should write to the Executive Officer, California Regional Water Quality Control Board, Central Coast Region, 81 Higuera Street., Suite 200, San Luis Obispo, California.

4. **Environmental Assessment:** Corps of Engineers has assessed the environmental impacts of the action

proposed in accordance with the requirements of the National Environmental Policy Act of 1969 (Public Law 91-190), and pursuant to Council on Environmental Quality's Regulations, 40 CFR 1500-1508, and Corps of Engineers' Regulations, 33 CFR 230 and 325, Appendix B. Unless otherwise stated, the Preliminary Environmental Assessment describes only the impacts (direct, indirect, and cumulative) resulting from activities within the jurisdiction of the Corps of Engineers. The Environmental Matrix and other worksheets and supporting data used in the preparation of this Preliminary Environmental Assessment are on file in the South Section, Regulatory Branch, Corps of Engineers, 333 Market Street, San Francisco, California..

The Preliminary Environmental Assessment resulted in the following findings:

a. IMPACTS ON THE AQUATIC ECOSYSTEM

(1) Physical/Chemical Characteristics and Anticipated Changes

Substrate - The proposed project would result in alteration to the substrate at the dam removal site and within the reservoir where sediments are to be excavated. The earthen dam would be completely removed using an bulldozer and excavator. Approximately 600 feet of creek channel would be excavated down 12 to 13 feet below is current elevation. The excavated material would be spread on an adjacent field and in an old cut at the base of the slope near the existing dam.

Stream-flow - Temporary adverse impacts to stream-flow would occur during project construction. The Wilder Creek channel would be temporarily rerouted to the west around the sediment field and dam. A four-foot deep channel would be created for two hundred feet adjacent to the reservoir, and the creek would flow on the surface beyond that point to a point 100 feet from the existing streambed. An 18-inch culvert would carry the creek flow the remaining 100 feet to the creek channel. Once the dam is removed, the temporary diversion of Wilder Creek would be breached allowing the stream to return to is historic channel.

Erosion/Sedimentation Rate - The proposed project would have long-term beneficial impacts upon the erosion and sedimentation rate in Wilder Creek. The project area is now undergoing severe erosion during winter high flows when the creek bypasses the dam and flows across the adjacent field. Also, downstream from the dam sedimentation has substantially increased and is adversely affecting the Wilder Ranch wetland restoration site which is an area undergoing restoration from previous use as an agricultural field. Also, removal of the sediments behind the dam is necessary to ensure that large volumes of material are not transported downstream into the restored wetland area.

Water Quality - Minor, short-term adverse impacts to water quality in Wilder Creek would occur due to excavation and fill discharges associated with the realignment of the channel and removal of the dam and sediments. Water quality impacts would likely result from short-term increases in turbidity downstream of the project site. However, the long-term effects on water quality would be beneficial because erosion of silty soils adjacent to the dam would be curtailed by restoring the original stream channel through the reservoir area.

(2) Biological Characteristics and Anticipated Changes

Wetlands (Special Aquatic Site) - The reservoir area above the dam which would be excavated to remove accumulated sediment contains approximately 1 acre of riparian wetland vegetation. Riparian species such as willows, and sedges are the dominant plants and provide habitat for birds, mammals, and amphibians. The riparian vegetation also provides shade and cover beneficial to salmonids present in the creek above the dam. The excavation of the riparian wetland would constitute a moderate adverse impact. However,

revegetation of the stream channel with native vegetation and natural revegetation would result in rapid reestablishment of riparian vegetation. The riparian vegetation along new creek channel would be expected to reestablish itself within 2-3 years of project completion. Full revegetation to a mature riparian corridor is expected to occur within 5 to 10 years. Because the reservoir is expected to return to a riparian area shortly after completion of the project, the impacts to wetlands are considered temporary and minor. In addition, the proposed project is designed to reduce sedimentation and destruction of wetlands created downstream of the dam. This is considered a long-term beneficial impact.

Mitigation - To a certain extent, the proposed project is self-mitigating because riparian vegetation is expected to reestablish itself along the creek channel at the proposed project site. The applicant also proposes to revegetate the stream corridor where excessive erosion has occurred. In addition to on-site mitigation, the applicant is proposing restoration of wetlands, and riparian habitat at the 110 acre restoration area located in the southeast corner of the Wilder Ranch Park. The restoration is part of the *Wilder Ranch Wetland Restoration Plan* prepared by Moss Landing Marine Laboratories dated April 1993. Up to 6 acres of riparian habitat, grassland, and wetland habitat located adjacent to Wilder Creek downstream of the project site have been restored. From 1994 to present, the farm fields which were located in the area between the Southern Pacific Railroad tracks and the Wilder Creek Estuary have been recontoured to create wetlands. Wilder Creek was allowed to aggrade and overflow its excavated channel, and native plants were established. The proposed dam removal is intended to enhance the downstream wetland restoration efforts which have been ongoing since 1994. The restoration area is monitored each year to determine what changes are occurring in the wetland. Action would be taken to ensure satisfactory functioning of the wetland ecosystem should increased sedimentation occur from the dam removal project.

Endangered Species - The applicant has contacted the U.S. Fish and Wildlife Service and conducted surveys to determine the presence of federally listed threatened and endangered species on the project site. The proposed project site supports habitat for the California red-legged frog *(Rana aurora draytonii)*. Therefore, there is a possibility the proposed project could adversely affect California red-legged frogs. No adverse impacts to any other federally listed endangered species have been indicated at this time. The project would result in potential beneficial effects to steelhead *(Oncorhyncus mykiss)* and coho salmon *(Oncorhyncus kisutch)* by restoring potential spawning and rearing habitat upstream of the dam. There would also be beneficial effects to tidewater goby *(Eucyclogobius newberryi)* habitat found in Wilder estuary one mile downstream of the Wilder Creek dam. At present tidewater gobies are present in the Wilder Creek estuary. The combined wetland restoration effort and dam removal could result in improvement of tidewater goby habitat in the Wilder Creek estuary by reducing the amount of fine, silty material carried downstream and deposited in the estuary.

If it is determined adverse impacts to California red-legged frogs or other federally listed threatened and endangered species would result from the proposed project, the Corps will initiate consultation with the U.S. Fish and Wildlife Service and/or the National Marine Fisheries Service as required by Section 7 of the Endangered Species Act.

Habitat for Fish, Other Aquatic Organisms, and Wildlife - Once established, the new channel and associated riparian mitigation area should provide valuable habitat for various aquatic organisms, wildlife, and bird species. Temporary adverse impacts to fish and wildlife would result from the removal of the dam and sediments. However, creation of a successful riparian habitat at the project site as well as prevention of wetland habitat loss downstream would represent a moderate, beneficial impact to wildlife utilizing Wilder Creek and associated riparian habitat.

b. IMPACTS ON RESOURCES OUTSIDE THE AQUATIC ECOSYSTEM

(1) Physical Characteristics and Anticipated Changes

Air Quality - Project activity would have minor, short-term impacts on air quality in the vicinity of the project site. Based on the relative minor size of the proposed project and limited to an evaluation of air quality impacts only within Corps of Engineers' (Corps) jurisdictional areas, the Corps has determined that the total direct and non-direct project emissions would not exceed the de minimis threshold levels of 40 CFR 93.153. Therefore, the proposed project would conform to the State Air Quality Implementation Plan (SIP) for California.

Noise Conditions - Construction activity would have minor, short term impacts on the ambient noise levels in the project site vicinity.

(2) Biological Characteristics and Anticipated Changes

Riparian Habitat (Not in Corps' Jurisdiction) - (See wetland impacts.)

Other Terrestrial Habitat - Short-term adverse impacts to terrestrial habitat outside Corps jurisdiction would result from the disposal of excavated sediments on adjacent fields. This impact is considered to be minor due to revegetation plans which would be implemented by the applicant.

(3) Socioeconomic Characteristics and Anticipated Changes

Aesthetic Quality - There would be a short-term adverse impact upon the aesthetic quality of Wilder Creek at the proposed project site resulting from dam removal and sediment excavation activities. The riparian vegetation above the dam would be temporarily removed and the excavated sediments would be spread on the adjacent field. The aesthetic impact of the proposed project is considered to be temporary and minor in magnitude. Reestablishment of riparian vegetation is expected to occur within three years after project completion.

Water Supply - Downstream from the dam, a 36-inch water pipeline is being undermined by erosional processes resulting from the bypass channel. The proposed project would correct this situation by removing the sediment in the reservoir and restoring the original stream channel. This is consider to be a long-term beneficial impact.

(4) Historic - Cultural Characteristics and Anticipated Changes

A Corps of Engineers' archaeologist is currently conducting a cultural resources assessment of the permit area, involving review of published and unpublished data on file with city, State, and Federal agencies. If, based upon assessment results, a field investigation of the permit area is warranted, and cultural properties listed or eligible for listing on the National Register of Historic Places are identified during the inspection, the Corps of Engineers will coordinate with the State Historic Preservation Officer to take into account any project effects on such properties.

c. SUMMARY OF INDIRECT IMPACTS

The proposed dam and sediment removal would have long-term beneficial impacts upon wetlands downstream of the project by reducing the deposition of large quantities of sediment in the Wilder Creek wetland restoration area and the Wilder Creek estuary. The project would also result in indirect beneficial effects to steelhead, coho salmon, and tidewater gobies inhabiting Wilder Creek.

d. SUMMARY OF CUMULATIVE IMPACTS

None have been identified.

e. CONCLUSIONS AND RECOMMENDATIONS

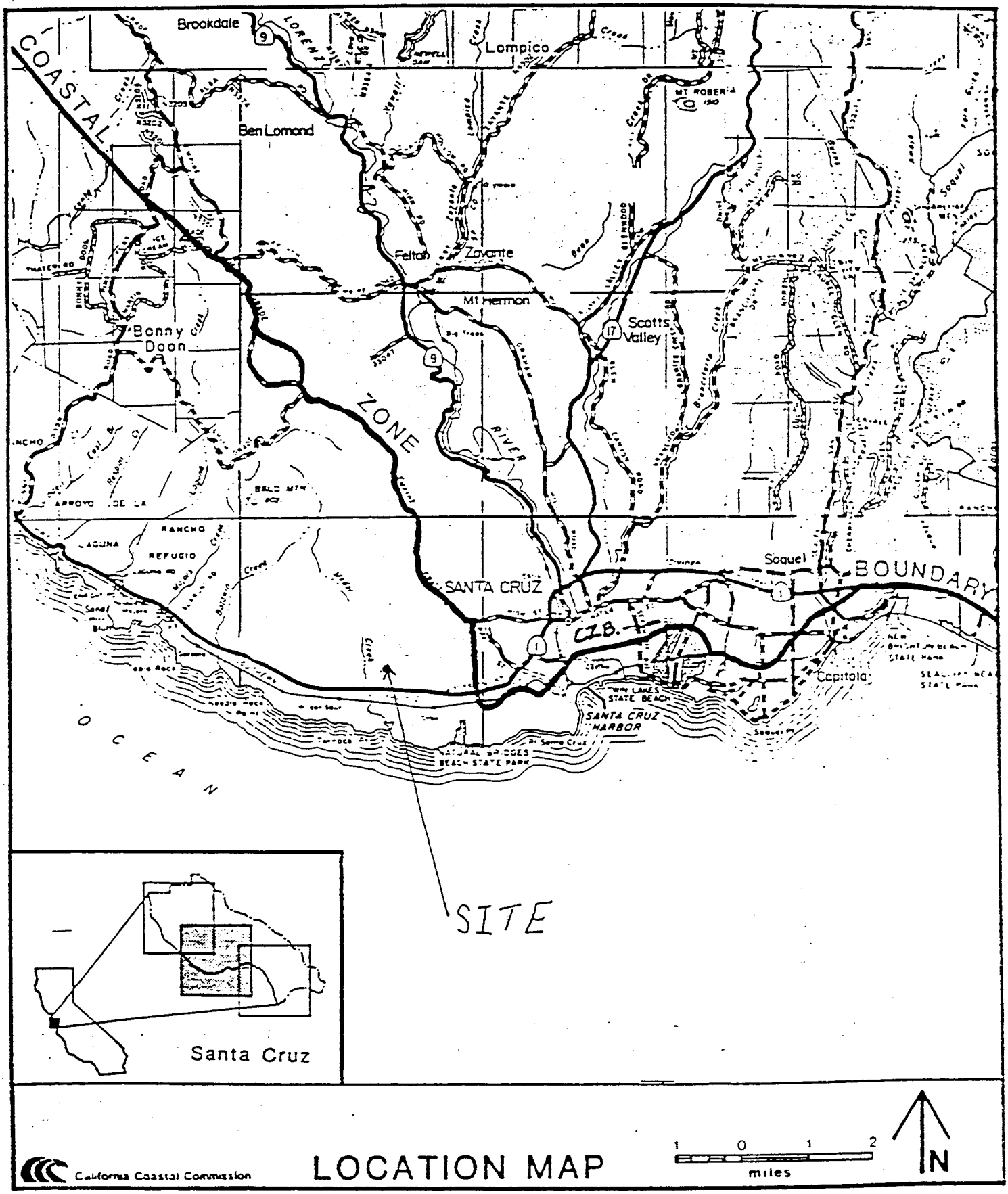
Based on an analysis of the above identified impacts, a preliminary determination has been made that it will not be necessary to prepare an Environmental Impact Statement (EIS) for the subject permit application. The Environmental Assessment for the proposed action has, however, not yet been finalized and this preliminary determination may be reconsidered if additional information is developed.

5. **Alternatives Analysis:** Evaluation of this activity's impacts includes application of the guidelines promulgated by the Administrator of the Environmental Protection Agency under Section 404(b) of the Clean Water Act (33 U.S.C. 1344(b)).

6. **Public Interest Evaluation:** The decision whether to issue a permit will be based on an evaluation of the probable impacts, including cumulative impacts, of the proposed activity and its intended use on the public interest. Evaluation of the probable impacts which the proposed activity may have on the public interest requires a careful weighing of all those factors which become relevant in each particular case. The benefits which reasonably may be expected to accrue from the proposal must be balanced against its reasonably foreseeable detriments. The decision whether to authorize a proposal, and if so the conditions under which it will be allowed to occur, are therefore determined by the outcome of the general balancing process. That decision will reflect the national concern for both protection and utilization of important resources. All factors which may be relevant to the proposal must be considered including the cumulative effects thereof. Among those are conservation, economics, aesthetics, general environmental concerns, wetlands, cultural values, fish and wildlife values, flood hazards, floodplain values, land use, navigation, shore erosion and accretion, recreation, water supply and conservation, water quality, energy needs, safety, food and fiber production, mineral needs, considerations of property ownership, and, in general, the needs and welfare of the people.

7. **Consideration of Comments:** The Corps of Engineers is soliciting comments from the public, Federal, State and local agencies and officials, Indian Tribes, and other interested parties in order to consider and evaluate the impacts of this proposed activity. Any comments received will be considered by the Corps of Engineers to determine whether to issue, modify, condition or deny a permit for this proposal. To make this decision, comments are used to assess impacts on endangered species, historic properties, water quality, general environmental effects, and the other public interest factors listed above. Comments are used in the preparation of an Environmental Assessment and/or an Environmental Impact Statement pursuant to the National Environmental Policy Act. Comments are also used to determine the need for a public hearing and to determine the overall public interest of the proposed activity.

8. **Submission of Comments:** Interested parties may submit in writing any comments concerning this activity. Comments should include the applicant's name, the number, and the date of this notice and should be forwarded so as to reach this office within the comment period specified on page one of this notice. Comments should be sent to: Lieutenant Colonel Richard G. Thompson, District Engineer, Attention: Regulatory Branch. It is Corps policy to forward any such comments which include objections to the applicant for resolution or rebuttal. Any person may also request, in writing, within the comment period of this notice that a public hearing be held to consider this application. Requests for public hearings shall state, with particularity, the reasons for holding a public hearing. Additional details may be obtained by contacting the applicant whose address is indicated in the first paragraph of this notice, or by contacting Mark D'Avignon of our office at telephone (415)977-8446. Details on any changes of a minor nature which are made in the final permit action will be provided on request.



County of Santa Cruz

Wilder Creek Dam Removal
Figure 1 4/1/98

Sheet 2 of 3

Exhibit 1

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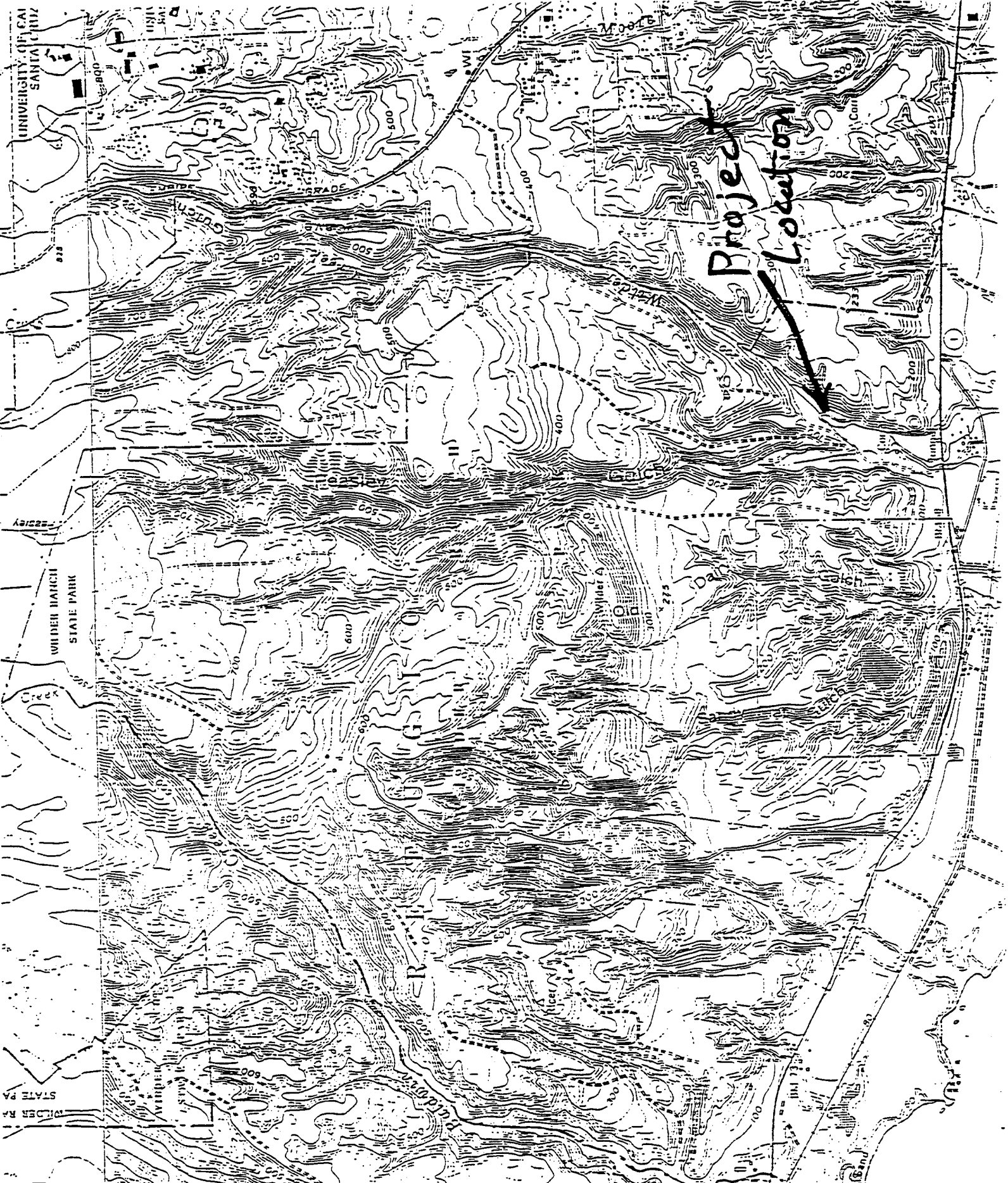

Wilder Creek Dam Removal
Figure 2 4/1/98

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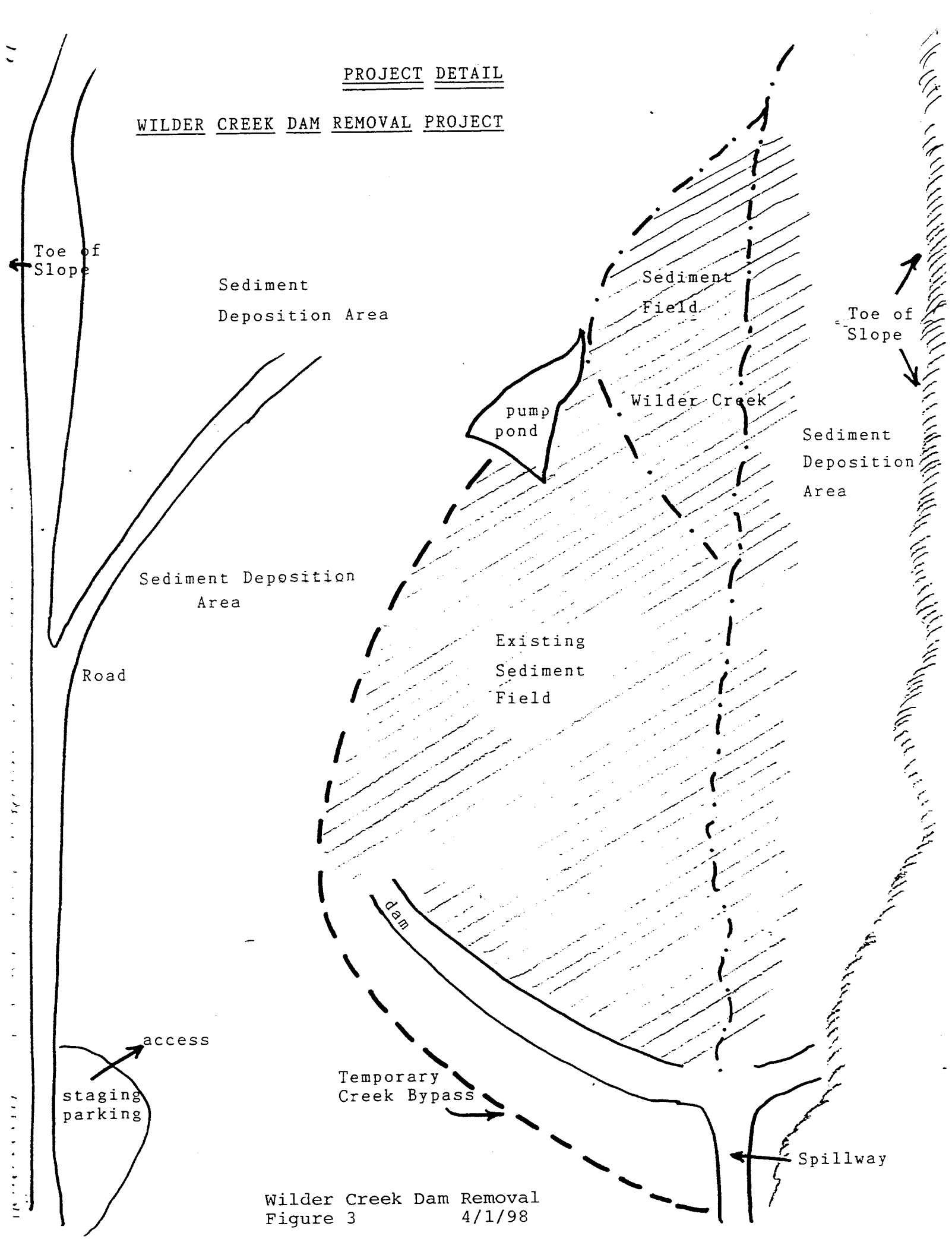
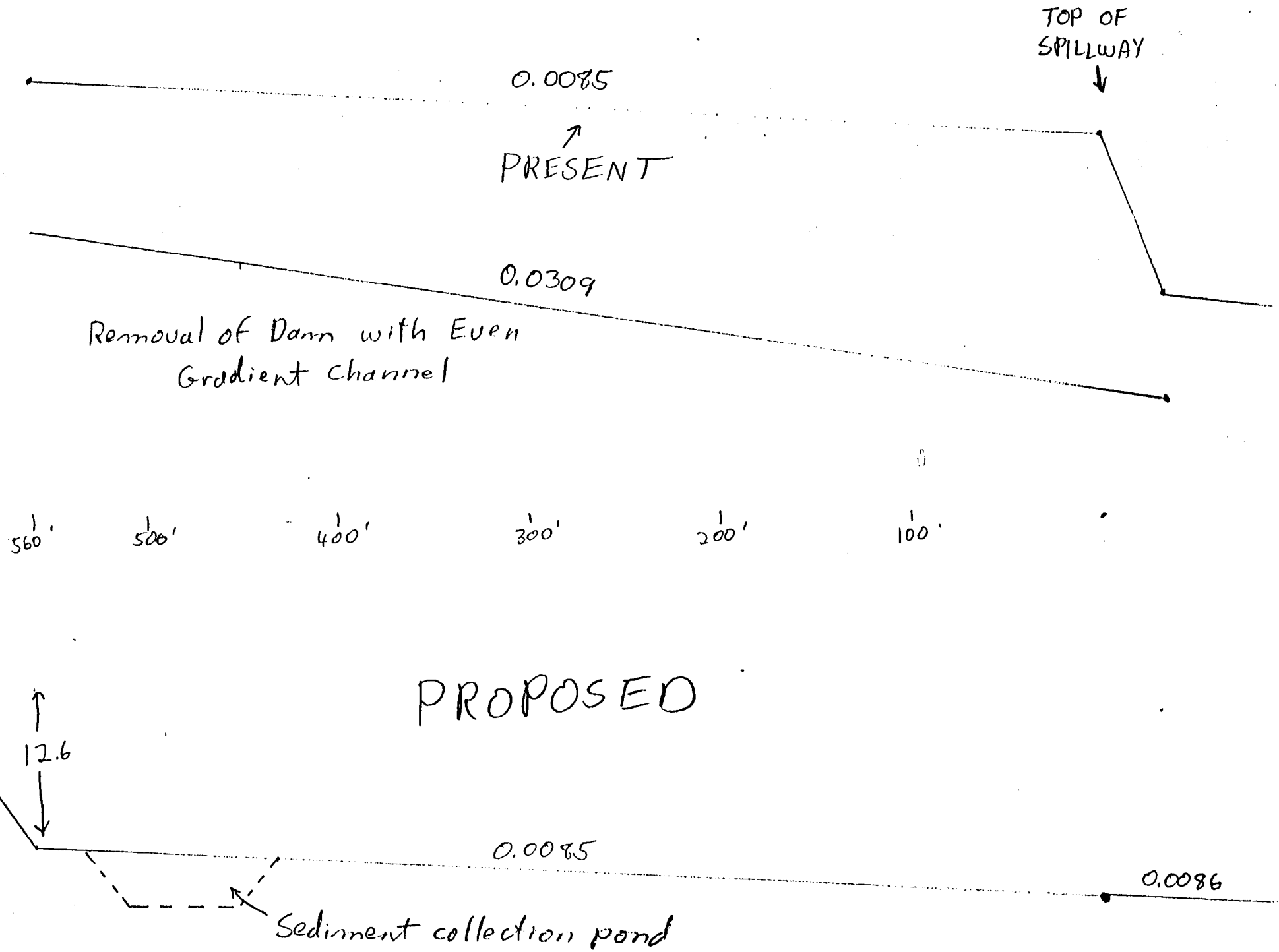


Wilder Creek Dam Removal
Figure 3 4/1/98



Wilder Creek Dam Removal
Figure 4
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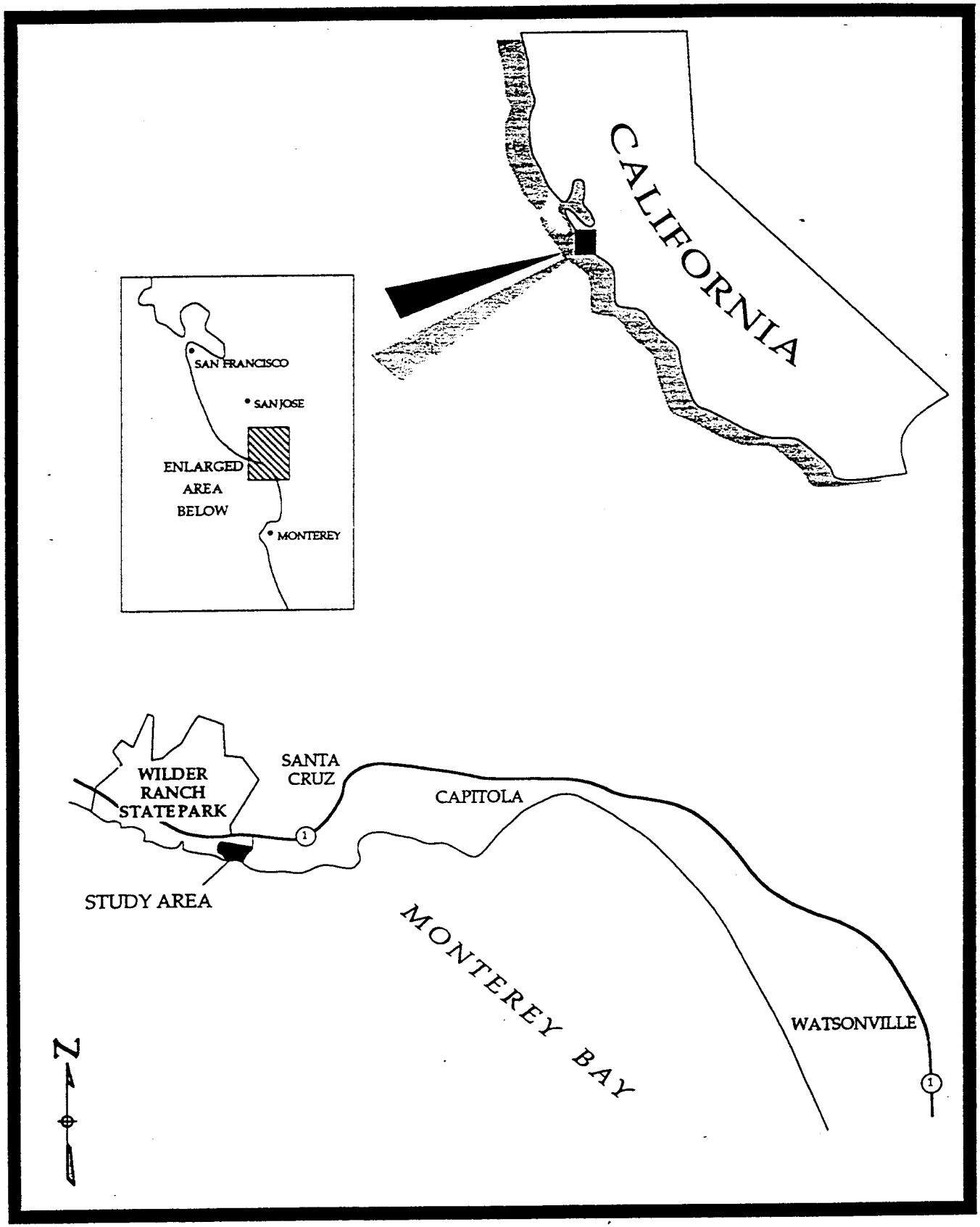

FIGURE 1. Regional location map of the study area.
Wilder Creek Dam Removal
Figure 5 4/1/98

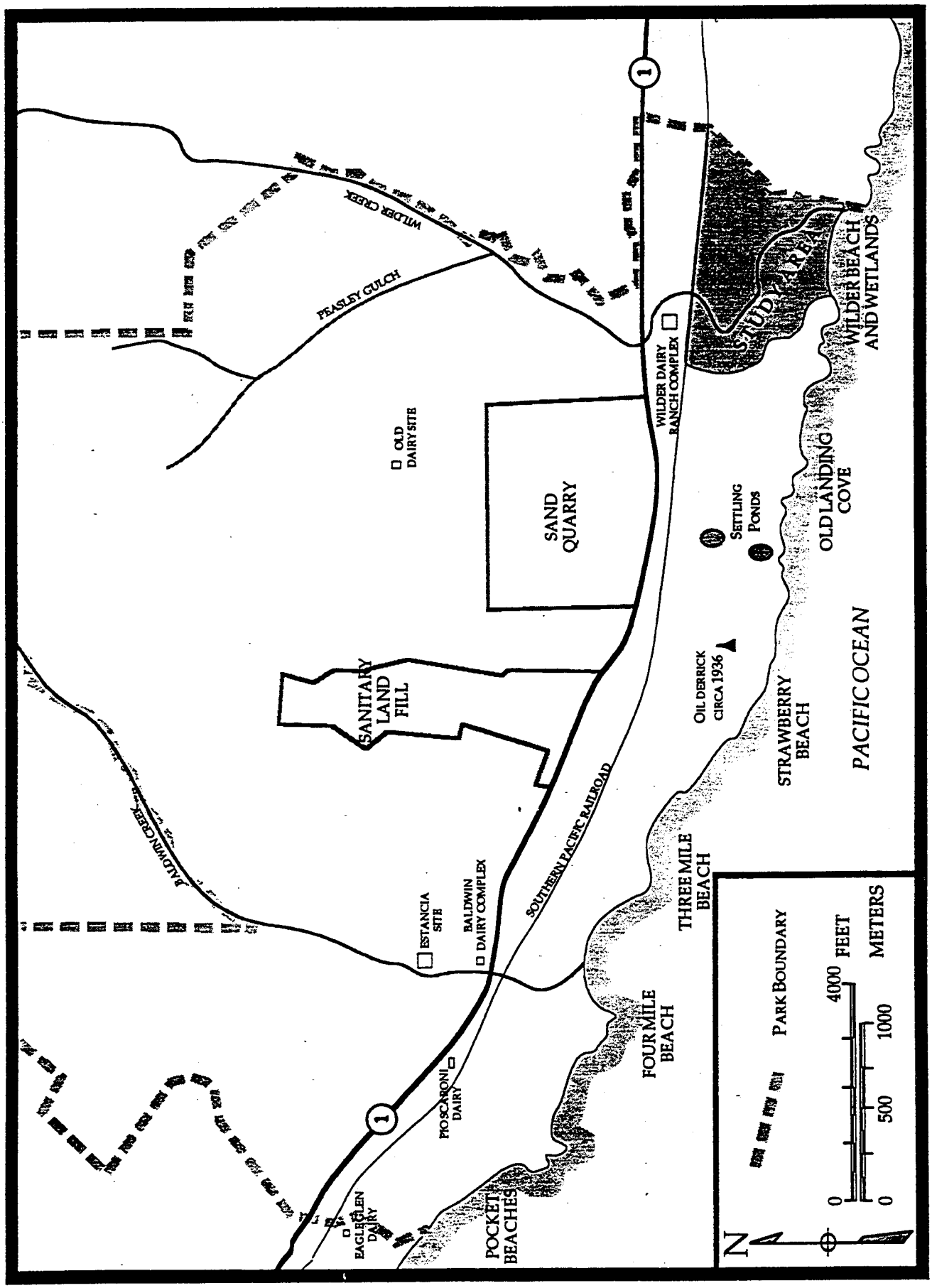

FIGURE 2. Wilder Ranch State Park and vicinity

Wilder Creek Dam Removal
Figure 6 4/1/98

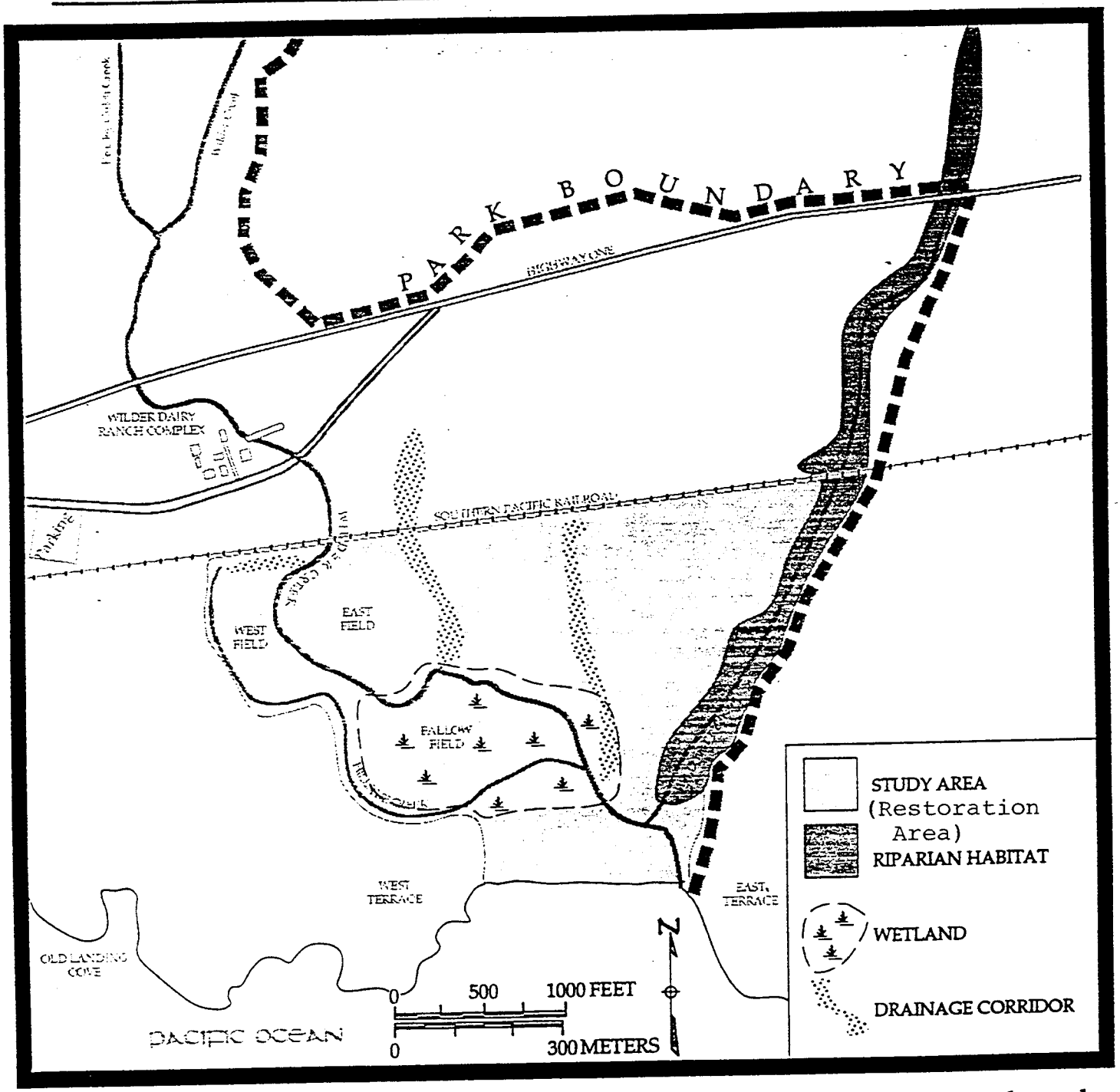

FIGURE 3: Watershed of Wilder Park Area showing two primary drainage creeks and three drainage corridors.

Wilder Creek Dam Removal
Figure 7 4/1/98